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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,209	02/27/2004	Sergio Belli	05788.0208-01	4686

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EXAMINER	
EWALD, MARIA VERONICA	
ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/787,209	BELLI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20 - 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/27/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                                     |

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

13. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 27, the applicant is stating an apparatus according to claim 26, wherein the speed of said constant pull lies between 600 and 1500 m/min. The applicant is imposing a method limitation on the apparatus described.

### ***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 – 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon (3,922,128: column 1, line 6, column 2, lines 6 – 8, 11 – 12, 14 – 18, 24, 26 – 27 and 37, column 3, line 23) in view of Marin (5,182,066: column 3, lines 15, 39 - 40). Solomon teaches an extruding apparatus in which resin is supplied via a hopper and conveyed forward in the extruder by rotational movement of a screw (column 2, lines 16 – 18). As the melted plastic moves forward, it moves forward towards the die. The reference further teaches that mounted in the head, adjacent the end of the barrel is a breaker plate with a series of holes or passageways (column 2, lines 26 – 27).

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These passageways convert the helical movement of the plastic to longitudinal flow (column 2, lines 29 – 30). In addition, the reference teaches that prior to entering the extruder, the wire to be coated leaves a pay-off or wind-up and after being adequately coated is fed to another wind-up where the strand is wound on a reel (column 1, line 66, column 2, lines 14 – 15). The reference further teaches that as the coated strand exits the die portion of the head, it passes through a short air gap into a trough in which water is circulated to accelerate cooling (column 2, lines 6 – 8), after which there is an air blower to remove any excess water from the cooled wire (column 2, lines 11 – 12). Solomon, however, does not teach the use of a filtration unit in conjunction with the breaker plate or the use of a cross-linking section prior to cooling.

In a method to apply a layer of insulation around an electrical cable core, Marin teaches an apparatus with similar characteristics as Solomon, but also teaches the use of a filter through which the plastic is forced by the screw (column 3, line 15). The filter removes contaminants and particles from the extruded plastic (column 3, lines 28 – 29). Marin also teaches that a cross-linking section may be used in which a cross-linking agent is added to the heated plastic and subsequently mixed (column 3, lines 39 – 40).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the extruding apparatus of Solomon to fit the filter of Marin for the purpose of removing particles and contaminants from the extruded plastic and to use the cross-linking section of Marin to add a cross-linking agent to the melted plastic.

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15. Claim 26 is rejected as being unpatentable over Solomon (3,922,128: column 1, line 6, column 2, lines 6 – 8, 11 – 12, 14 – 18, 24, 26 – 27 and 37, column 3, line 23) in view of Marin (5,182,066: column 3, lines 15, 39 - 40) as applied to claims 20 – 25 and 28 above and further in view of Portinari (4,673,540: column 3, line 51, column 4, lines 22, 25 – 27). The extruders of Solomon and Marin lack a system of pulleys and/or gears to keep the conducting element under a constant pull.

In a method to cover an optical cable with plastic having helical grooves in its surface, Portinari teaches the use of a pulley mounted to freely rotate on a support extending from a shaft driven by a gear to advance the cable into and out of the extruder (column 4, lines 25 – 26).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the extruding apparatus of Solomon and Marin with the system of pulleys and gears of Portinari for the purpose of moving the cable through the production line at a constant pace.

### ***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Utech can be reached on 571-272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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